Soybean Digest

JAN 9 1945
EAST ENGINEERING LIBRARY

The Price of Beans

WFA ORDERS PROTEIN LIMITATIONS
FUTURE FOR BEANS IN WASHINGTON
THE USE OF SOYBEAN OIL IN 1944

Official Publication
OF
THE AMERICAN SOYBEAN ASSOCIATION

VOLUME 4 • NUMBER 2 DECEMBER • 1943

EACH A RECORD BREAKER

BUT ONE HAS THE WINNING SPEED AND EFFICIENCY FOR YOU!

Today when time is so vital the three St. Regis Packaging Systems are doing their bit by shaving priceless manhours from the time once required to package an infinite variety of products. Because each of these systems sets new records on the job for which it was specifically designed, St. Regis has no favorite system. Following an on-the-spot survey of your packaging operation, we recommend *the* system best suited to *your* product—and *your* production needs.

The many industries changing over to Multiwall Paper Bags welcome the added protection given their products—and the savings in manpower and money effected by St. Regis Packaging Systems. These savings can be yours, too, if your product is baggable in rugged, custom-built Multiwalls, and is packed in 25 to 100 lb. units.

VALVE PACK — ***Maximum Production and Minimum Labor*** are outstanding features of the St. Regis Valve Pack System. Your product is preweighed by St. Regis Automatic Packing Machines (Belt, Screw or Impeller type) and rapidly propelled into valve type, self closing Multiwall Paper Bags. Gravity Type Packers are available for free-flowing products.

SEWN PACK — ***Rapid, Uniformly Siftproof Closures*** are assured open mouth bag users with the St. Regis Sewn Pack System. Automatic sewing machines apply a bound-over tape and filter cord, and quickly sew through all plies of the bag. Powdered products cannot work their way through this extra strong closure.

TIED PACK — ***Greater Economy on Moderate Production*** is achieved with the St. Regis Wire Tied Pack System. A hand twisting tool constitutes the entire equipment for effecting the securely tied closure around the neck of the bag.

Our experience in solving the packaging problems of varying industries may be of great practical help to you. A St. Regis Packing Engineer will be happy to specify the type of bag required for your product—and recommend the packaging system best suited to your production needs.

St. Regis Bags are built of 3 to 6 independent walls of specification kraft paper fabricated in tube form, one within the other, so each bears its share of the load. Chemical and physical properties of product determine number and weight of kraft and special sheets.

St. Regis MULTIWALL PAPER BAGS

MULTIPLY PROTECTION • MULTIPLY SALEABILITY

ST. REGIS PAPER COMPANY

TAGGART CORPORATION • THE VALVE BAG COMPANY

NEW YORK: 230 Park Avenue

CHICAGO: 230 No. Michigan Avenue

IN CANADA

BATES VALVE BAG CO., LTD.
Montreal, Quebec
Vancouver, B. C.

Baltimore, Md.
Birmingham, Ala.
Dallas, Tex.
Denver, Colo.
Kansas City, Mo.
Los Angeles, Calif.
New Orleans, La.
Seattle, Wash.
Franklin, Va.
Nazareth, Pa.
San Francisco, Calif.
Toledo, Ohio

THE Soybean Digest

GEO. M. STRAYER, Editor KENT PELLETT, Managing Editor

Publishers' Representatives: Ewing-Hutchison Co., Chicago

Vol. 4 DECEMBER ☆ 1943 No. 2

IN THIS ISSUE

	Page		Page
Soybean Oil in 1944	4	*New Recipes*	8
Tie Beans to Corn	5	*WFA Limits Protein*	9
Soys in Washington	6	*Record Bean Supply*	10
Pictures	7	*Markets and Orders*	16

THE AMERICAN SOYBEAN ASSOCIATION

OFFICERS: President, J. E. Johnson, Champaign, Ill.; Vice President, Howard Roach, Plainfield, Iowa; Secretary, George M. Strayer, Hudson, Iowa; Treasurer, J. B. Edmondson, Clayton, Ind.

DIRECTORS: Ersel Walley, Fort Wayne, Ind.; John Dries, Saukville, Wis.; Jacob Hartz, Stuttgart, Ark.; David G. Wing, Mechanicsburg, Ohio; John Sand, Marcus, Iowa; Walter McLaughlin, Decatur, Ill.; Roy H. Monier, Carrollton, Mo.

Published on the 15th of each month at Hudson, Iowa, by the American Soybean Association. Entered as second class matter November 20, 1940 at the postoffice at Hudson, Iowa, under the Act of March 3, 1879. Forms close on 10th of month. Subscription price to association members, $1.00 per year; to non-members, $1.50 per year.

MERRY CHRISTMAS

TO THE many men within the soybean industry who have helped make the past year a profitable one — to the members of the American Soybean Association who have helped make the organization of greater value to a nation at war — to each and every reader of this, our monthly effort to bring you the news of the soybean world — we extend the heartiest of Christmas Greetings.

A war-torn world can never be a happy world until the peace and order for which we are fighting has been restored. But insofar as is possible we do extend to you our hopes for Holiday Happiness. May the dawn of the New Year also be the dawn of the year of peace — and thus the happiest of all New Years. Ere long the Prince of Peace shall reign again.

AN ISSUE STILL ALIVE

EFFORTS of representatives of the American Soybean Association to encourage the passage of HR 2400 were to no avail. The House Committee on Agriculture, in a surprise move, voted 14 to 11 to kill the bill, after supporters had been allowed to present their arguments. The vice-president and the immediate past-president of the American Soybean Association appeared before this committee, pointing out the importance of the bill to the soybean industry, and urging the passage of legislation which would lift all federal excise taxes on margarine produced from domestic fats and oils.

While HR 2400 is dead, the margarine issue is not. Consumers of fats and oils are going eventually to marshall their forces and demand the repeal of restrictive taxes. That time is now drawing close. It may not be done in the current session of Congress. The American consuming public is not going to allow legislative bodies to dictate its purchases. Free choice and decision between products is going to be demanded. In that fact lies the hope of the future markets for soybean oil.

TIE SOYBEANS TO CORN

AMERICA'S stockpile of fats and oils, as compared with contemplated needs, is now at the lowest ebb in many years. Necessity demands that we produce edible oils within our own country at the highest rate in history. We must produce those fats and oils with as little expenditure of manpower, equipment, time and expense as possible. The only logical answer is soybeans — for they will produce more pounds of high nutritious edible oil per acre than any other crop which can be successfully grown in America's breadbasket. And at the same time those soybeans will produce more pounds of highly nutritious protein for use by man or beast. And protein supplies need expansion, too!

Recognizing the situation, the AAA has announced acreage goals which entail about a 20 percent increase in the soybean acreage of the nation for 1944. In Iowa the increase runs as high as 47 percent above 1943 acreage figures. The necessity is so urgent and the need so great that we must meet those goals!!

But, we fear that unless changes are made from present plans those goals will not be met — in fact the 1944 acreage is likely to be less than the 1943 figure. And there is a very logical reason.

Feed supplies are short, compared with livestock numbers, over the nation. The farmer is going to produce the crops which bring him the greatest cash returns. At the present time those are the feed crops, for the ratio between feed costs and livestock prices has been very favorable. While OPA established a ceiling price on corn, the efficient feeder could realize far more than that ceiling price by feeding livestock. The Midwest farmer has averaged well above $1 per bushel for his corn when marketed on the hoof.

When that farmer can produce 70 bushels of corn per acre, and market it at above $1, is he going to be willing to produce 25 bushels of soybeans per acre and market them at $1.80 per bushel? Not if he is sane!! And even with all the patriotic appeals Washington can devise! And if a subsidy or compliance payment of $10 per acre if offered on each acre of beans, he will still be foolish to plant soybeans on any but his poorest acres! And those are the very acres where soybeans should not be grown!

There is but one logical solution. Raise the price of soybeans to the point where it becomes profitable to produce them. Instead of $1.80 per bushel that means a price ratio of at least 2.5 to 1 as compared with corn prices. On a $1.00 corn price basis soybeans should be worth $2.50 per bushel. Inflationary? Yes. Drastic upward revision? Yes. Economically sound? Yes.

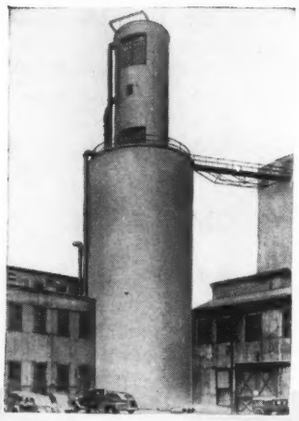
The Board of Directors of the American Soybean Association at its recent Chicago meeting recommended such a price ratio. A rule of thumb followed for many years by members of the trade is 3:1, as compared with corn. The present recommendation is, then, conservative.

We offer it as the only way in which the 1944 soybean acreage goals will be met. Will we take the needed steps?

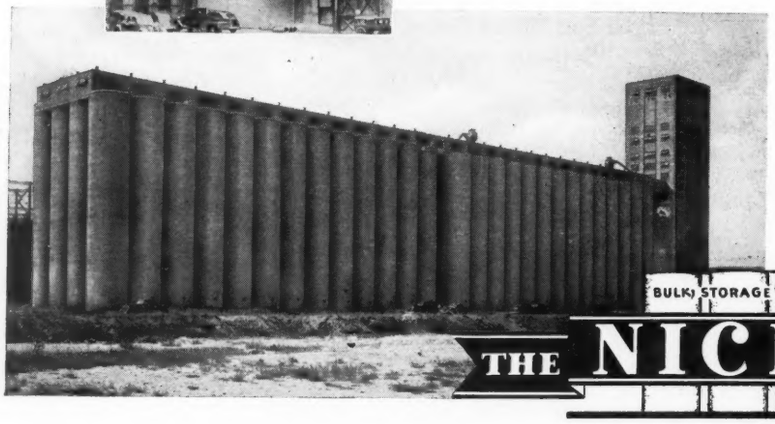
STORAGE BINS

with All Handling Facilities

by Engineers and Contractors equipped to handle big jobs and ready to take small ones.



Two Nicholson storage and handling plants, selected from thousands, to indicate range in sizes undertaken by our engineers and contractors.



A contract placed with the Nicholson Company will bring to your storage and handling problem the experience of a company which has specialized in concrete storage bins since 1914 . . . the company which pioneered this type of construction.

In these days of critical material shortages and with the necessity of getting things done quickly — concrete usually offers the best type of construction for storage bins and our "sliding form" method of construction is faster and more economical. We are staffed to handle your project from plan to performance. Call on us for preliminary planning. No obligation.

12-NC-2

BULK STORAGE · COAL-GRAIN-LIQUIDS · STORAGE · HANDLING EQUIPMENT

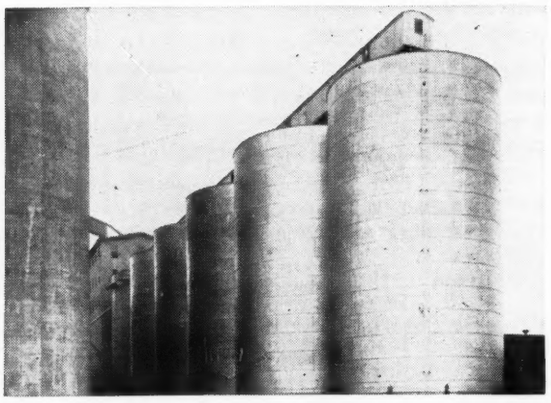
THE NICHOLSON CO.

CONSTRUCTION · CEMENT-OIL-CHEMICALS

Ten Rockefeller Plaza, New York 20, N. Y.

WAREHOUSE RECEIPTS

The EASIEST Way to FINANCE SOYBEANS



BONDED Warehouse Receipts, issued by WILLIAM H. BANKS WAREHOUSES, INC., covering SOYBEANS, OILMEAL and SOYBEAN OIL, stored ON YOUR OWN PREMISES, furnish you with needed WORKING CAPITAL through your REGULAR banking connection.

Financing by means of Field Warehousing has been the accepted practice in the Soybean Industry for many years.

Wire, or Write, or 'Phone us today for full information and descriptive booklet.

WILLIAM H. BANKS WAREHOUSES, INC.

BONDED FIELD WAREHOUSEMAN

209 SOUTH LA SALLE STREET **CHICAGO, LLINOIS**

Ask Any STEINLITE User NOW!

The STEINLITE One Minute Moisture Tester

Perhaps you've been thinking about a Steinlite to make Moisture Tests on your soybeans, soybean meal and similar products. Now . . . during the peak season of use . . . is the time to find out what a Steinlite will do for you. Just ask any of the 4,000 users. There are undoubtedly several near you. Just ask us to name them. Incidentally, there are more Steinlites in use than all other electric moisture testers combined.

Steinlite is FAST . . . with it, a moisture test is made in one minute by an experienced operator, in 2 or 3 minutes by almost any operator.

Steinlite is ACCURATE . . . checks against official government oven method. Made by a pioneer organization of radio engineers.

Steinlite is EASY TO USE . . . almost as easy to use as tuning in a radio. Operated on the electrical impedance principle. Sold on 10 day Free Trial. Prompt shipments on orders placed now.

"HEADQUARTERS" *for Seed and Grain Testing Equipment*

Since 1912 Seedburo has been the leading source of laboratory and testing equipment for the seed and grain industries. Every item is built by experienced craftsmen, and rigidly inspected during the manufacture. The Seedburo line is broad and widely assorted . . . hence the term "HEADQUARTERS for Testing Equipment."

SOYBEAN DOCKAGE SIEVES

A set gives 3 gradings of each sample. Federal Grain Supervisors use Seedburo Precision Type sieves, set of 2 sieves and bottom pan. Precision Type $9.25. Commercial $6.75.

NO. 88-A, SHO-GRO SEED GERMINATOR

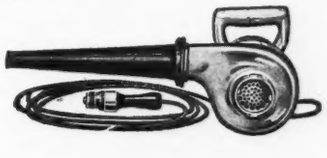
The new improved Sho-Gro has 40% more germination space. Readily converted into a combination light and dark germinator or an all dark germinator. Reduces normal germination time. 7 removable wire mesh trays 10½" x 15" hold any type or size of seed. Price.....$40.00
No. 89 Kimpak germination paper to fit Sho-Gro 100 sheets.....$ 4.75
No. 41 Germination blotters to fit Sho-Gro—100 sheets....$ 4.00

NO. 237 BAG TRUCK

Long wrought iron nose for bulky bags and boxes. Bent plow handles of hard wood, reinforced with cross braces. Cast iron wheels mounted on turned bearings. Weight 30 lbs.
Price with Iron Wheels.....$11.00
Price with Fibre Wheels.....$17.50

TORNADO BLOWERS — Blow and Spray

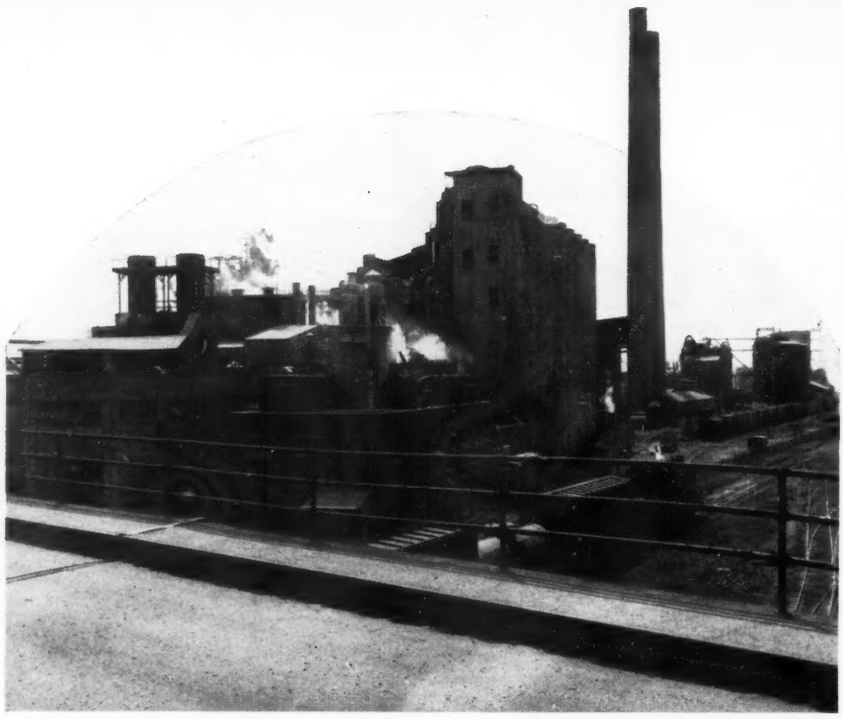
These are the most powerful and durable blowers made. They are specially designed for heavy duty, commercial use. The Single Unit Blower is tops for blowing out dirt from machine equipment such as overheated and burned out motors. 1/3 H. P., price $54.45 — ¾ H. P., price $71.50 — 1 H. P., price $92.95.



Send for complete Catalog No. 143

SEEDBURO EQUIPMENT COMPANY
Formerly SEED TRADE REPORTING BUREAU FOUNDED 1912

629 BROOKS BUILDING CHICAGO 6, ILLINOIS



A Soybean Processing Plant — USDA Photograph by Knell

The Use of Soybean Oil in 1944

By C. T. PRINDEVILLE

• *Where will all the oil from the great 1943 soybean crop go? Mr. Prindeville gives a preview in an article especially prepared for* THE SOYBEAN DIGEST. *The author recently resigned as chief of the Fats and Oils Branch of the Food Distribution Administration to return to the vice presidency of Swift & Company, Chicago, which post he left last year.*

THE TOTAL requirement of the United States for fats and oils during the year beginning October 1, 1943 is 11.9 billion pounds. If 150 million bushels of soybeans are crushed from the 1943 crop — estimated at 207 million bushels, domestic soybean oil will amount to about 1,350 million pounds or one-ninth of the entire requirements. Its production is exceeded only by that of lard, butter, and inedible tallow and grease.

Soybean oil is very important from the standpoint of quantity and because of its unusual versatility. No other fat or oil of commercial significance can be used satisfactorily in as many different industries. As an edible oil, it is acceptable in flavor, color and consistency for the manufacture of margarine, shortening and cooking and salad oils. As an industrial oil, it is a satisfactory raw material for making protective coatings. When hydrogenated, it can be used for the manufacture of all types of soap, and it has a multiplicity of other functions in the industrial field.

The versatility of soybean oil is fortunate at this time because of two things:

(1) The Japs are in possession of some of our normal sources of fat supply and we must now improvise with other oils where formerly palm, tung and cocoanut oils were used.

(2) Since we cannot know in advance what our particular war requirements will be, an oil that can be used in many fields is more desirable than one with limited uses.

Of the 11.9 billion pounds of fats we need during the next twelve months, 8.1 billion pounds are earmarked for food, 2.1 billion for soap, and 1.7 billion for industrial uses. Of this quantity, United States civilians will receive 5.6 billion pounds or 70% of the food fats, and 1.7 billion or 83% of the soap fats. The industrial oils will be consumed largely in American factories for the production of war materials — for ourselves and our allies — and for essential civilian goods for U. S. consumers. The remaining 2.5 billion pounds of food fats will go to our military services and be exported to our allies, friendly nations, and liberated areas.

ALLOCATIONS

Exportable supplies of fats and oils produced in the United States and in allied and neutral countries over and above domestic needs are allocated by the Combined Food Board. In coordination with this Allied world plan, we in the United States allocate every three months the quantity of fats to go to our civilians for various purposes, and to all other claimants, such as the Army, Navy, and Lend-Lease. The distribution of soybean oil within the United States is our own internal problem and is subject only to the restrictions of certain food distribution orders (FDO-29 and FDO-42), imposed by wartime necessity. Without unduly restricting private enterprise, it is not possible for the Food Distribution Administration to determine a year in advance exactly where our soybean oil is going to be consumed. Our best estimate, however, is that it will be used about as follows:

	Million lbs.
Shortening and oils for civilians	372
Margarine for civilians	209
Shortening, margarine and oils for U. S. Territories	14
Shortening, margarine and oils for military services and Lend-Lease	303
Shortening, margarine and oils for friendly nations	5
Red Cross prisoner-of-war baskets	9
Crude oil for Canada	14
Contingency for European relief	10
Soap for civilians	65*
Soap for military services and Lend-Lease	15*
Protective coatings for industry and civilians	6
Protective coatings for military services	17
Coated fabrics for civilian uses	4
Coated fabrics for military services	4
Textile and leather processing	4
Lubricating oils	5
Miscellaneous industrial uses	15
Loss in process	12
	1,072

*Including foots from refining of edible oils.

The remaining 250 million pounds which we hope will be produced from the 1943 crop, will be channeled into whatever uses are most urgent as the season progresses, or will be used to rebuild depleted reserves.

Due to the versatility of soybean oil it must, in each of its uses, enter into competition with other fats and oils on a basis devoid of sentiment and in terms of price, technical qualities and availability. In the edible field, Food Distribution Order No. 29 allocates (by months or quarters) crude and refined soybean oil for various classes of use. For the last quarter of 1943 manufacturers of margarine, shortening and salad oil were authorized to use all the cottonseed oil they asked for up to 75 percent of their total use of oils. Those who asked for more

C. T. PRINDEVILLE

than 75 percent were permitted 5 percent as peanut oil and the balance as soybean oil. Few manufacturers want to use this much cottonseed oil so, on the average, soybean oil constitutes 36 percent of the oil used for civilian margarine, shortening and salad oil and 52 percent of the oil needed in these products for the military services and Lend-Lease.

Vegetable oil foots, including those from refining crude soybean oil, are in steady demand in the making of soap, and the soap manufacturer uses the available supply, except that part bought by fat splitters for the production of fatty acids. Soybean oil in its ordinary state can be used only in soft soaps, but when hydrogenated to a sufficiently high melting point, it is raw material for the production of any soap. The traditional soap making materials are the harder fats which sell at comparatively low prices, such as tallow, grease, palm oil, palm kernel oil and cocoanut oil. The capture of the Philippines, Sumatra and other tropical areas by the Japs, though, has greatly reduced the supply of palm and cocoanut oils, so the soapmaker probably will have to look to other than normal fields for some 20 percent of his requirements. He may use lard, which is more expensive than soybean oil but does not need as much hardening. On the other hand, soybean oil is more attractive to soapmakers than linseed oil, both from the standpoints of ceiling prices and the ease of hydrogenation.

In manufacturing paint, varnish, linoleum, oilcloth and coated fabrics, soybean oil can be used to advantage. However, FDO-29 regulates the shipment of crude soybean oil to all industrial users while the OPA rationing order No. 16 requires the passing of ration points before refined soybean oil can move to such manufacturers. There is no objection to these uses of soybean oil, provided it is not needed for more essential purposes, but it is not likely to be allowed until more definite figures are obtained on the size of the 1943-44 soybean crush.

One of the large uses of soybean oil in the industrial field has been in core oil, used by foundries for the casting of iron, steel and various non-ferrous metals, but it is not being allowed for that purpose now. Linseed oil has been more widely used in core oils and now is relatively more available than soybean oil. The principal industrial uses of soybean oil at present are in the manufacture of alkyd resins for paints and varnishes requiring specific properties in coatings applied on production lines of planes, tanks, and other implements of war; as sulphonated oil in various textile processes; in fat liquoring for leather processing in caulking and glazing compounds; in factice for rubber compounding; in cutting, grinding and drawing compounds; and in many other uses.

EXPORTS ALLOWED

The use of cottonseed and peanut oils in shortening and margarine for commercial exports to friendly nations is not being allowed at present, but export licenses for soybean oil products are allowed where export quotas exist.

Under Lend-Lease, the United Kingdom is at present taking lard, principally. The British armed services, outside of the United Kingdom, however, are taking margarine and shortenings containing substantial quantities of soybean oil.

The Russian requirements under Lend-Lease are being supplied to a large extent by linseed oil. Traditionally, that country has used large quantities of linseed oil for cooking and seasoning. Since that oil is in better supply because of our record 1943 flax crop, plus imports from Canada and the Argentine, we will supply substantial quantities in bulk to the Russians. We also are re-exporting Argentine sunflower seed oil to Russia and some soybean oil is being furnished that country as margarine, shortening and liquid oils.

With heavy military and civilian requirements which can be satisfied with soybean oil it is hoped that as large a proportion as possible of the soybeans harvested will be crushed for oil — whether the by-product is meal or flour. Even a maximum production should find an active demand throughout 1944.

Tie Beans to Corn

• A. S. A. DIRECTORS VOTE

"RECOGNIZING that it will be extremely difficult to reach the food production goals established by the AAA and cooperating governmental agencies for 1944, and further recognizing that the large increase in soybean acreage will be extremely difficult to obtain because of the favorable price ratio existing at the present time between corn and livestock prices, the American Soybean Association recommends to Commodity Credit Corporation, the AAA, the War Food Administration, and other governmental agencies concerned with farm price structures, the immediate adoption and announcement of a base or guaranteed price on soybeans which will be approximately two and one-half times the price of corn, on the bushel basis."

Such was the text of a resolution adopted by the Board of Directors of the American Soybean Association at a special meeting held in Chicago on November 30. Copies of the resolution were forwarded to all agencies and persons concerned with governmental price programs. Unless some measure such as the one suggested above is adopted at an early date it is anticipated that the soybean acreage in several states will decline in 1944, rather than increase. Demands for fats and oils to sustain our supplies dictate the 1944 goals as minimum acreage for the 1944 year. It was the feeling of the members of the Board of Directors that unless soybeans are placed in a far more favorable price relationship than exists at the present time the acreage goals will fall far short of being met.

HR 2,400

Discussion of the recent action taken by the Agricultural Committee of the House of Representatives in killing HR. 2400 which would have repealed federal taxes and license fees on margarine, resulted in the adoption of a resolution by the board reaffirming the resolution adopted at the annual convention in September, and outlining the policies of the organization pertaining to domestically produced fats and oils. Copies were ordered sent to members of the Senate Finance Committee, before which group a bill embodying the essentials of HR 2400 is now under consideration.

Plans for continuation of the membership and subscription campaign, for a campaign to increase the usage of proper inoculation cultures on the 1944 soybean acreage, and for steps to be taken to secure governmental appropriations for the expansion of soybean disease studies were also discussed at the meeting. Seven members of the Board of Directors were present.

Two members of the Association appeared in November in Washington in support of HR 2400. Appearing before the House agricultural committee were David G. Wing, Mechanicsburg, Ohio, immediate past-president, and Howard Roach, Plainfield, Iowa, vice-president of the Association. Their action in support of the bill was in line with a resolution adopted at the Cedar Rapids convention in September.

HOWARD ROACH

Despite the support of soybean and cottonseed growers and others interested in removing restrictions having an adverse effect on the nation's nutrition during the emergency, the bill was tabled after the close of testimony in its favor.

All 12 republicans, joined by two democrats, McCord of Tennessee and Granger of Utah, united to kill the bill. No support for the bill came from congressmen of the Midwest, where the great bulk of the soybean crop is grown.

The bill would have repealed the 10-cent per pound tax on colored margarine, the one-fourth cent a pound tax on uncolored as well as retailer and wholesaler license fees ranging up to $600 a year. Margarine supporters have announced plans to continue the battle and have introduced a similar bill in the Senate.

"There may have been some excuse for taxing margarine years ago when there was

(Continued on page 12)

★ RESEARCH ★

Cost of Growing

Operating costs for producing an acre of grain soybeans in 1942 were $12.15, reports R. H. Wilcox in the October issue of *Illinois Farm Economics*. This is the result found on a group of farms keeping cost accounts in Champaign and Piatt Counties, Ill.

When land charges were added, the net cost of producing an acre of grain beans was $18.86. The yield per acre was 25.9 bushels, and the average cost per bushel was 72.8 cents. The yield and quality of beans on some of the farms suffered from an extremely wet late fall and early winter. Those farmers who harvested their beans before the middle of November escaped the snow and wet weather which kept some combines out of the field until March and April of 1943. Total income per acre averaged $41.56. Farm account records from each of 51 Illinois farms where crops were grown both on the contour and in straight rows showed a 2.3 bu. per acre yield advantage in favor of contouring for soybeans.

THERE'S A FUTURE FOR SOYBEANS IN

State of Washington

By ARDEN W. JACKLIN

• *The crop has been successful under irrigation, says Arden W. Jacklin, of the Jacklin Seed Company, who have been growing it since 1935. Condensation of an address before the Washington State Farm Chemurgic Committee.*

WE OF the Jacklin Seed Company were intrigued several years ago with the possibilities of soybean production and the challenge existent in those possibilities.

In 1935 we started actual growing tests and trials with the most common strains and varieties of oil or field type soybeans. There was no definite background information other than that the state experiment stations in the Inland Empire were not enthusiastic regarding the possibilities of soybean production based upon their growing trials. Our trials were located on the Garrison gravelly loam soil under irrigation in the Spokane Valley of eastern Washington.

Without going into detail about these early experiments let us say that we became thoroughly involved with non-adapted strains and varieties, and more important, with the cultural problems of production. At that time we nearly gave up our trials. None of our soybeans showed promise.

In 1936 we gave our soybeans another trial and included several new rather specialized strains. In that year we were pleased with the showing made by an unnamed strain secured from Wisconsin. For want of a better or true name it has since been called "Jacklin's Soybean."

This bean under the condition where it was grown produced well and matured satisfactorily. The seed quality was excellent having good size, viability and color. Tests of oil and protein content showed that the seed compared very favorably with standards for soybean seed. From this point on we devoted our time to cultural problems of the production of this one soybean — and they were numerous. Among other things we raised our seeding rate per acre from 30 pounds up to 90 pounds. Depth of planting was adjusted from two to three inches, common with garden seed beans, to an inch and a half or shallower. Cultivation techniques for the control of weeds after the soybeans had sprouted and were above ground were developed. Soil fertilizing tests were conducted. Planting equipment and other problems were studied. But the biggest problem of all, inoculation, remained as a major obstacle.

We don't know just what is, or has been, wrong. We only know that to date, in general, we have not been getting proper and sufficient inoculation. Several methods of artificial inoculation have been tried. Strain trials of inoculating bacteria within the type that work with soybeans have been conducted and improved bacteria or selected strains are being bred for soybeans in the Pacific Northwest.

We have been able to secure first year partial or crown inoculation but we have not economically secured in the first year, coverage of the entire root system, or what we term sufficient inoculation.

INCREASED

We must have, at least in our present terms of thinking — heavy or complete inoculation of powerful adapted strains of soybean inoculating bacteria to grow soybeans successfully. Seed yield, seed quality, growth, maturity, in fact, the entire productive capacity of soybeans seems to be intimately governed by inoculation.

We don't thoroughly understand the soybean inoculation problem and admittedly haven't solved it.

In 1940 our company had increased the Jacklin Soybean to some 200,000 pounds. We were securing yields in the Spokane Valley of up to 38 bushels of seed or 16 to 22 tons of green manure per acre on a field basis. At that time the Centennial Flouring Mills were interested in the industrial development of soybeans and bought the seed with all the industrial development rights to it with the idea of testing soybeans further for widespread production. Their testing was over a two-year period and was supplemented by the Jacklin Seed Company's assistance by previous agreement. This work was carried on through seed production contracts with farmers and through test plots with state and local chapters of Smith Hughes in Washington.

A general summary of these test results shows that soybeans were not successful under the conditions grown and methods used on the dry lands of the Pacific Northwest. This doesn't mean that they cannot or will not be grown there, but we haven't been successful yet with the methods and kinds used.

IRRIGATION

Soybeans have, in general, been successful under irrigation when grown in rows and cultivated. However, we still have many problems on this type of production. The economics of production is still in question and probably cannot be answered until after the impact of war production is evened out and soybeans can be fitted into a normal production pattern.

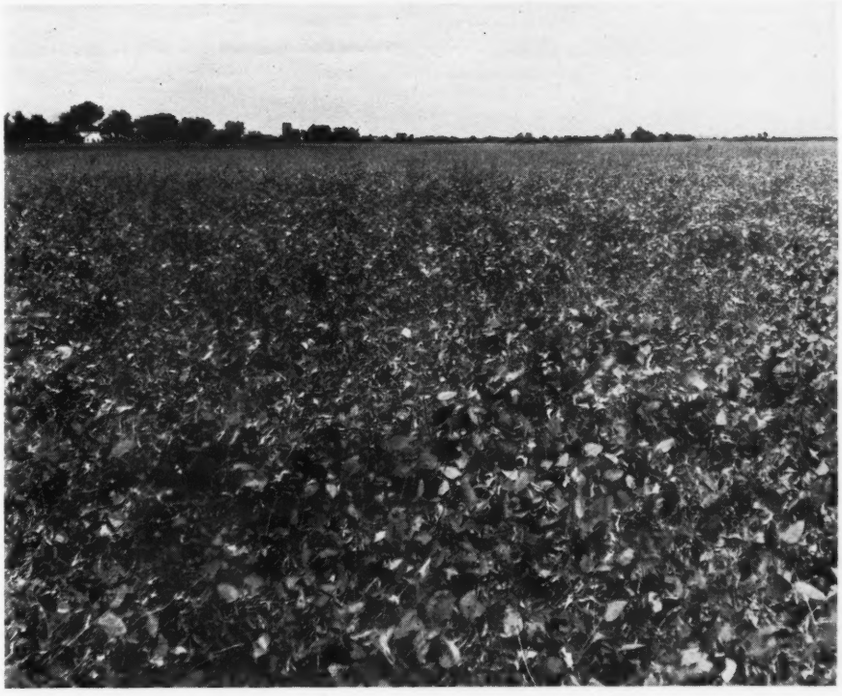
In 1942 the yield of soybean seed in the Spokane Valley was light. It was a poor year for soybeans there. Yet in the sub-irrigated, diked, Northern Kootenai Valley in the vicinity of Creston, B. C., it has been reported that four carloads of soybean seed were shipped out last year and over 1,000 acres are being grown this year.

Because of the light crop experienced in 1942 and also due to the pressure of war-

(Continued on page 12)

A field of soybeans in the Spokane Valley. At left is B. H. Jacklin, manager of the Jacklin Seed Co.

PICTURES---THE WORLD OF SOY



Left, 130 acre bean field on R. C. Smith farm, Columbus Junction, Iowa, said to be largest in State in 1943. Do you know of any larger?

Left center, 1943 harvesting scene on H. C. Schultz farm, Champaign County, Ill.

Left lower, soybean storage experiment at University of Illinois farm. Seventy wooden and steel bins are being erected for the experiment.

Above, Mrs. Warren Langfitt and Joan, Langfitt Seed Farms, Warren County, Iowa. Field of Patoka soybeans, planted on contour.

Below, 1942 harvest, Tazewell County, Ill. Remember?

— Above and below — Illnois Agricultural Ass'n

— Illinois Agricultural Ass'n

SEND IN YOUR PICTURES. The editors will pay $1.00 for each photo contributed by our readers and published in The Soybean Digest. Address: Picture Editor, The Soybean Digest, Hudson, Iowa.

SOME NEW SOY RECIPES

THOUSANDS of housewives have for the first time taken home one of those brightly colored packages of soy flour or grits to ease the pinch on other protein foods in the kitchen. They are now to be found on many grocers' shelves.

Much timely information on the best use of these high powered body-building foods is to be found in the recent pamphlet, "Cooking With Soya Flour or Grits," issued by the Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture, Washington, D. C. A copy may be obtained by writing direct to the Bureau.

The following recipes for interesting dishes are from the booklet and have all had exhaustive tests in the Bureau's kitchens.

WITH SANDWICH SPREADS

A little soya flour does its bit toward making a sandwich spread nourishing. Blend the soya and other ingredients. If you don't use all the filling at once, keep it tightly covered in the refrigerator.

Peanut Butter

Combine ½ cup peanut butter, ½ cup soya flour, and ½ cup salad dressing or sandwich spread.

Apple Butter

Combine 1 cup well seasoned apple butter with ½ cup soya flour.

Egg Salad

Combine ¼ cup salad dressing, ¼ cup soya flour, add 2 chopped hard cooked eggs, ¼ teaspoon salt, pepper, and if desired a little mustard and chopped celery.

Cheese

Combine ½ pound cottage cheese or 3-ounce package of cream cheese with ½ cup soya flour. To heighten the flavor, add one of the following:

¼ cup sweet red pepper relish.
2 tablespoons salad dressing, 2 tablespoons horseradish, ½ teaspoon salt.
2 tablespoons salad dressing, 2 teaspoons onion pulp, 2 tablespoons finely chopped parsley, ½ teaspoon salt.
2 tablespoons salad dressing, 2 tablespoons chopped nuts, ½ teaspoon salt.

WITH MEAT

Soya Scrapple

1½ pounds pork (bony pieces)
1½ quarts water
1½ cups corn meal
5 teaspoons salt
½ cup soya grits
2½ tablespoons onion pulp
Thyme, sage, or celery seed, if desired

Let the pork simmer in the water until meat drops from the bones. Strain off the broth. Separate bones from meat, taking care to get out all tiny bits, and chop meat fine.

There should be about 5 cups of broth . . . if necessary, add water to make 5 cups. Bring broth to boiling. Slowly add the corn meal and 1 teaspoon of the salt. Cook over direct heat, stirring constantly for 5 minutes: then cook covered over hot water 1 hour. Add the chopped meat, soya, onion, 4 teaspoons salt, and other seasonings if wanted.

Rinse loaf pans in cold water and pour the hot scrapple into the dampened pans to cool and become firm. Slice scrapple, dip in flour, and fry in a little fat.

Soybean loaf combines filling goodness with protein-rich food values. Dried soybeans may be prepared like navy or lima beans in casserole, loaf, soup or stew. Soybean pulp, made by cooking the dry beans and mashing them or putting them through the food chopper, may be used in cakes, pies and cookies as well as in meat and vegetable dishes and as sandwich fillers.

WITH FISH, EGGS, CHEESE

Soya-Codfish Cakes

½ pound salt codfish (package form)
1½ cups hot seasoned mashed potatoes
½ cup soya grits mixed with ½ cup milk
2 eggs, well beaten

Soak the codfish in cold water to remove some of the salt. Drain and add fresh water, then simmer until the fish is tender. Place fish in a double layer of cheesecloth, press out all liquid. Shred fish and remove all bones.

WITH VEGETABLES

Soya Potato Cakes

Blend ¼ cup soya grits, previously mixed with ¼ cup milk, with 2 cups of seasoned mashed potatoes and 1 teaspoon of salt. Pat into cakes, dip lightly in flour, fry in a little fat. If soya flour is used rather than soya grits, leave out the ¼ cup milk.

Scrambled Egg-Vegetable Roll

3 eggs
3 tablespoons water
¾ cup soft bread crumbs
⅓ cup soya flour mixed with ½ cup water
¾ cup drained cooked peas, snap beans, or other vegetable
½ teaspoon salt
Pepper

Add the 3 tablespoons of water to the eggs and beat until light and thick. Combine bread crumbs, soya water mixture, vegetable, and seasoning. Fold gently into the beaten egg. Pour into a little fat in a hot frying pan and cook slowly until the egg browns. Roll and serve.

WITH FLOUR

Soya Dumplings

½ cup sifted flour
2 teaspoons baking powder
½ teaspoon salt
¼ cup soya flour or grits
1 egg
⅓ cup milk

Sift together the flour, baking powder, salt and soya. Beat the egg and pour in the milk. Mix all ingredients just enough to blend. Drop the butter by spoonfuls over boiling stew, kraut, soup or gravy. Cover the pan tightly to hold in steam and boil gently for 15 minutes without lifting the lid. Serve at once.

To vary flavor, try putting ¼ to ½ cup cooked ground meat into the batter.

FOR SUCCESS WITH SOYA

Follow directions — use the right amount in the right way. The main job of soya is to step up nourishment. Don't expect it to take the place of wheat flour in thickening a sauce or gravy or as the only flour in bread making. It hasn't the necessary starch and gluten.

Note that you use a good deal of liquid in almost every recipe. Soya flour and grits fairly drink up moisture.

Soya flour may pack down in the package, so stir it up well before measuring.

Be generous with seasonings. When you mix soya with meat or other flavorful foods, you spread out the flavor so that it's milder.

You can count on foods with soya browning quickly. The soya products give a richer brown to baked foods and a crisper crust to sausage, fried mush, and potato cakes.

Store soya products just as you should store other packaged goods—cool and dry.

Flour or grits go equally well in some recipes. Take your choice when it's sausage cakes, potato cakes, dumplings, some soups, and puddings.

WFA Order Limits Proteins

● EFFECTIVE JANUARY 1

WAR Food Administrator Marvin Jones has announced a proposed order to limit the quantity of oilseed meals and animal protein that can be used by the manufacturers of mixed feeds during the period, Oct. 1, 1943 to Sept. 30, 1944. It also would provide that, if necessary to obtain equitable production, a limitation may be placed on the quantity of protein meals handled by retail dealers.

The proposed order, effective January 1, was immediately protested by the Midwestern Feed Mixers Association and the American Feed Mixers Manufacturers Association. "The priority given growers of soybeans and cotton seed will freeze the meals in the local area of production and further disrupt the flow of these materials to the feeders of the country. This will result in rendering meaningless the proposed allotment of oil meals to feed processors and handlers and be disastrous to countless feeders depending on these established sources of supply," said D. D. DeForest, Galesburg, Ill., president of the Feed Mixers Association.

Food Distribution Director J. B. Hutson has announced that all suggestions will be considered before final orders are issued and indicates there may be some changes in the final orders.

SET ASIDE

Administrator Jones said that the Food Production Administration of WFA has issued a set-aside order under existing regulations which will be effective on meal processed during the month of January.

"We are seeking to improve the protein feed situation," Jones said. "Early this fall processors of oilseed meals were requested to distribute oilseed meal among feeders, large and small mixed feed manufacturers, and other classes of buyers in approximately the same proportion as during the 1941-42 feeding year. These processors also were asked to distribute the oil meals in a manner which would tend to effectuate the livestock production program in line with war needs.

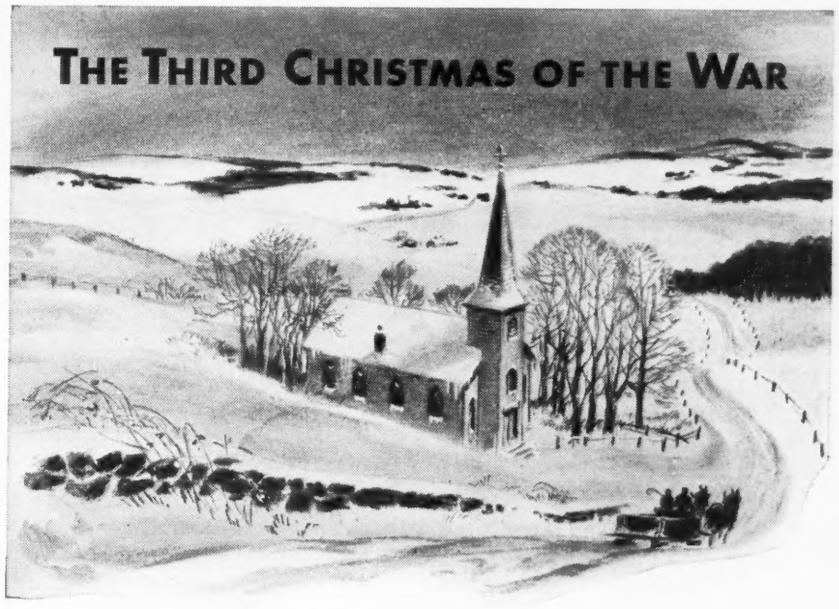
"Most manufacturers have cooperated in carrying out these suggestions. However, it has become increasingly difficult for livestock feeders in some areas and for many small feed mixers to obtain a normal quantity of protein meal. The proposed revisions appear necessary in order to distribute these feeds more equitably."

The Food Administrator announced that a Feed and Livestock Branch is being established in the Food Production Administration, which will direct the administration of FPO No. 9. In the field, the order will be administered by State and County Agricultural Conservation Committees and Feed Advisory Committees.

Walter C. Berger, Des Moines, has been appointed head of the new branch to administer orders relating to livestock and feed matters. Mr. Berger, who is on leave from his post as president of the Des Moines Oats Products Co., has been very active as regional director of the Feed Industry Council during the past year, and has an intimate knowledge of feed and feeding problems.

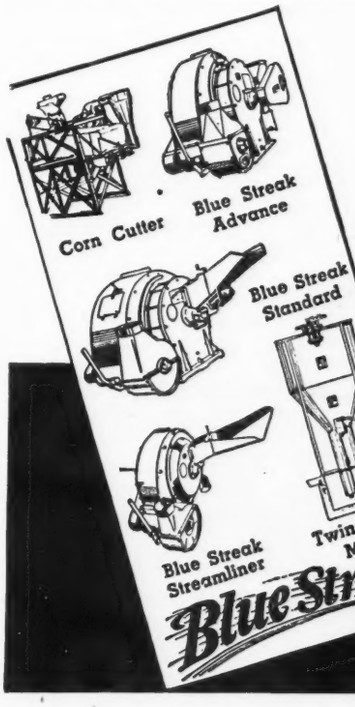
The principal provisions in the proposed order to become effective on January 1, 1944, are:

1. During the period, October 1, 1943, to September 30, 1944, no mixed feed manufacturer can use for the manufacture of mixed feeds more than 110 percent of the amount of protein meal which he used for that purpose during the calendar year of 1942. After the effective date of this order the amount of protein meal to be used for any quarterly period shall not exceed 110 percent of the quantity used during the highest three consecutive months of 1942. However, the quantities of unmixed protein meal delivered to a feeder or custom mixed with home-grown feeds supplied by the feeder shall not be considered as used in the



December marks the second anniversary of Pearl Harbor, the third Christmas of War, and the close of the year of our Lord one thousand nine hundred forty-three.

Though the struggle ahead may be long, may we pause to wish you and yours, in whatever land, on every sea, a Merry Christmas-and all success in our greater united effort in the New Year of 1944.



PRATER

PRATER PULVERIZER COMPANY
1825 South 55th Ave., Chicago, Ill.

☐ CORN CUTTER
☐ BLUE STREAK STANDARD
☐ BLUE STREAK ADVANCE
☐ BLUE STREAK STREAMLINER
☐ TWIN SPIRAL MIXER
Send information on mill checked.

Name .....
Address .....
City ..... State .....

Do You Have Your Copy?
SOYBEAN FOOD
All papers on soy foods presented by the nation's leading authorities before the American Soybean Association. Illustrated 32-page booklet. 10c Each Postpaid.
THE SOYBEAN DIGEST
HUDSON, IOWA

Why Risk $10.00 to Save a dime?

A good crop of soybeans will grow on good land without proper inoculation—but it grows at an extra cost of at least $10 per acre in nitrogen **taken from the land.**

Neither prior crops nor the presence of nodules guarantee the proper inoculation necessary to take this nitrogen "Free From the Air."

Always Use

KALO

INOCULATION

"THE PEER OF THE BEST"

Guarantee proper inoculation at a cost of only pennies per acre

TOP RANKING QUALITY AT NEW LOW PRICES

2 bushel size	$ .30
5 bushel size	.45
25 bushel size	1.95
30 bu. size (6-5 bu. cans)	2.60

KALO INOCULANT COMPANY

QUINCY, ILLINOIS

manufacture of mixed feed, provided that the mixing and the purchase of other ingredients are not required by the manufacturer as a condition of the sale of the protein meal.

2. If necessary to obtain an equitable distribution of protein meal in any area, the Director of Food Production may limit the quantity of protein meal which retailers or any class of retailers within the area may deliver to feeders during the feeding year.

3. Persons other than livestock feeders are prohibited from accepting delivery of any protein meal which, together with the recipient's inventory of meal, would exceed a 15-day supply. Feeders cannot have on hand at any particular time an amount of protein meal exceeding a 30-day supply. Exceptions to the inventory limitations are made for certain ranchmen who must lay in a season's supply before bad weather, for purchasers who customarily buy in either carload or less-than-2,000-pound quantities, and for soybean and cottonseed producers making conditional sales of cottonseed and soybeans.

BEANS FOR MEAL

4. Producers of soybeans and cottonseed may make conditional agreements to obtain protein meal in exchange or sale of their oilseeds. However, the total meal so acquired plus the meal on hand and that acquired since October 1, 1943, cannot exceed the quantity of protein meal necessary to supply the minimum feeding requirements of the producer for the feeding year in accordance with the usual feeding practices on the farm.

5. Appeals from the limitations imposed by the revised order can be made to the chairman of the State Agricultural Conservation Committee if 75 percent or more of the protein meal or mixed feeds manufactured therefrom is sold in the state. In all other cases, appeals may be made to the Director of Food Production in Washington.

The proposed order embraces all protein meal in the form of tankage, fish meal, and meat scraps, or cake, meal, and pellets derived from cottonseed, soybeans, peanuts, flaxseed, copra, sesame, babassu, ouricury, palm kernel, and corn germs. The use of soya flour, grits, and other edible soybean products for livestock feed in any form is prohibited.

—sbd—

Soybean meal can be made into celluloid substitutes, feed, fertilizer, human food, glue, casein and water paints.

RECORD BEAN SUPPLY FOR '44

Prospects for soybeans at the first of November together with data on stocks October 1 indicate a record supply of 218,908,000 bushels of soybeans for the 1943-44 season, reports the Food Distribution Administration. This compares with 215,695,000 bushels in 1942-43. Allowing about the same quantities as last season for seed, feed, soybean flour and other uses and around 10 million bushels for carryover stocks at the close of the season about 135,500,000 bushels would be available for crushing this season compared with 132,573,000 bushels crushed in 1942-43. Inspections of early marketings indicate that the quality of the 1943 crop may be considerably higher than that of the 1942 crop. Ninety-five percent of the receipts inspected in October this season graded No. 2 or better compared with 58 percent in October 1942.

Supplies of soybeans for the 1942-43 season were the largest on record up to that time and reflected the war effort to increase supplies of oilseeds. The acreage harvested for beans in 1942 was 10,762,000 acres or 83 percent above the previous year and 5 times the average (1930-39) acreage. Seventy percent of the acreage sown for all purposes was harvested for beans. Yields were exceptionally high at 19.5 bushels per acre compared with an average of 16.1 bushels. The resulting crop of 209,559,000 bushels was double the 1941 production and 6 times the average crop.

STOCKS

Stocks of old soybeans carried over from the 1941 crop totaled 6,136,000 bushels of which 3,227,000 were on farms, 928,000 in country elevators, 1,120,000 in crushing plants and 861,000 in elevators at terminal markets. Adding the 1942 production gave a total supply of 215,695,000 bushels. This was about twice the previous year's supply although exact data are not available for stocks at the beginning of the 1941-42 season.

Crushings of 132,573,000 bushels for the production of soybean oil accounted for approximately 60 percent of the season's available supplies. Of this quantity 25,095,000 bushels were processed during the October-December quarter, 37,575,000 January through March, 41,236,000 April through June, and 28,667,000 during the July-September quarter. The crushing of these quantities of soybeans resulted in a total production of 599,103 tons of soybean oil and 3,179,200 tons of soybean meal. Seed requirements for planting the 1943 crop were estimated at 23,315,000 bushels.

DANNEN

WHEN YOU NEED HIGH PROTEIN FEED or have SOYBEANS TO SELL

Call or Write

DANNEN MILLS

ST. JOSEPH, MISSOURI

Don't Ship Soybeans South

● SAYS A. S. A. PRESIDENT

Editor, *The Soybean Digest*,
American Soybean Association,
Hudson, Iowa.

As President of the American Soybean Association, I feel we should advise our farmer members, through our official publication, of the heavy purchases and shipments of soybeans by Commodity Credit Corporation from the Corn Belt to the South. As a result Corn Belt feeding may be upset.

In a recent statement I pointed out that the fine Illinois soybeans were being poured into the South for crushing, although the South is keeping practically all of its cottonseed meal and its peanut meal from the North. I estimated Illinois produced about 70 million bushels annually; that seed requirements are 6,500,000 bushels, and 3,500,000 bushels are needed for feed. I also stated that 7,500,000 bushels of Illinois soybeans had gone south through St. Louis terminals from October 1 to November 12.

Now comes the startling fact. Commodity Credit Corporation admits that 13 million bushels of Illinois soybeans have moved out of Illinois. Processors and elevator people say even this figure is short and there will be two million bushels additional, making 15 million bushels of our fine Illinois soybeans taken from the state. Illinois farmers are entitled to this information.

Our member farmers of other soybean growing states should be on the alert so that this unjustified movement to the South will not cut down processing or the meal supply so badly needed in the Corn Belt. It is time that the CCC officials in charge of this buying program in Washington should be called upon to make all the detailed facts public. Farmers are entitled to know.

J. E. Johnson, President
American Soybean Association.

PUBLICATIONS

SAVE WEATHER-DAMAGED SOYBEANS, by J. L. Cartter, senior agronomist, Bureau of Plant Industry, U. S. Department of Agriculture.

A valuable leaflet on the procedure to follow in harvesting the soybean crop under adverse weather conditions. Since date of bloom and maturity is affected by length of day, as the author points out, the 1943 yield was not materially affected by the late planting in much of the soybean belt last spring, and most of the crop escaped severe frost damage.

The Department was prepared for a repetition of last fall's disasters, but luckily this type of information was not so badly needed this fall.

RESPONSE OF SOYBEANS TO EXPERIMENTAL DEFOLIATION, by R. M. Gibson, R. L. Lovvorn, and Ben W. Smith, in *Journal of the Society of Agronomy*, September 1943.

An experiment at the North Carolina Experiment Station to investigate the management of the soybean as a grazing crop and to provide information on the effect of defoliation on both the recovery of leaves and ultimate seed yield.

This information was needed since the acreage of beans utilized as a grazing crop has increased recently in North Carolina.

Biloxi and Tokyo varieties were grown on a Congaree sandy loam at Raleigh, N. C., during the summer of 1940 for the purpose of studying the effect of defoliation on leaf, stem and seed yield. Combinations of degrees and frequencies of defoliation were studied.

Complete defoliation at any frequency was too severe for satisfactory growth. Medium defoliation treatments resulted in significantly higher leaf yields than the light or severe treatments. The leaf yields of the two varieties did not differ significantly. Tokyo leaf yields were less affected by varying degrees and frequencies of defoliation than those of Biloxi.

Weights of stems and roots were inversely related to severity of defoliation treatments. Any degree of defoliation resulted in a decrease in the weight of seed produced. Yields tended to be inversely related to the severity of the defoliation.

Defoliation treatments caused greater reductions in seed yields of Tokyo than of Biloxi, but Tokyo produced more beans under all treatments.

There has never been the demand that exists today for protein-rich soybean oil meal. Even with expanded soybean acreage, soybean oil meal supplies will be limited for some time to come.

But if we all work together, we can *stretch* those supplies. You can help yourself and your country by telling your customers how to make soybean oil meal go further.

For example, remind customers against wasting protein by feeding production rations to dry stock and bulls. Suggest that they put pigs on good pasture, and restrict soybean oil meal in their fattening rations . . . after they've reached 75 to 100 pounds. Of course, customers know these and many other practical conservation methods . . . but often they may forget to practice what they know.

Tell them, too, they can get help on how to conserve protein-rich feeds by sending for the U. S. Department of Agriculture's bulletin, "Government-Industry Protein Conservation Program."

Swift & Company

Mills at Champaign, Illinois • Cairo, Illinois • Des Moines, Iowa . Fostoria, Ohio

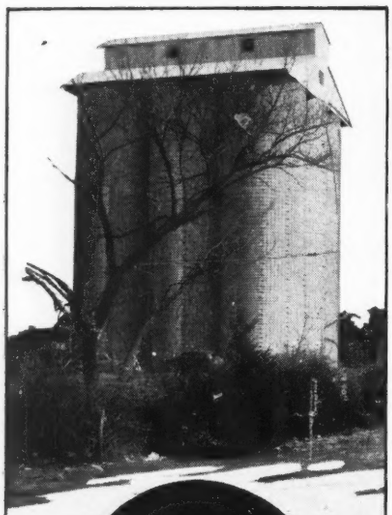
ENTHUSIASTIC SEEDSMEN
READ AND USE

Seed Trade News

We Can Prove It

Of vital interest to growers, wholesale and retail dealers. Only weekly newspaper for the industry. **Up-to-minute production, merchandising and trade news.** Subscription — $2.00 per year. Sample copy on request. Service — free and friendly.

109 N. Dearborn St., Chicago 2, Ill.



NEFF & FRY
STORAGE
BINS

SOYBEAN
STORAGE

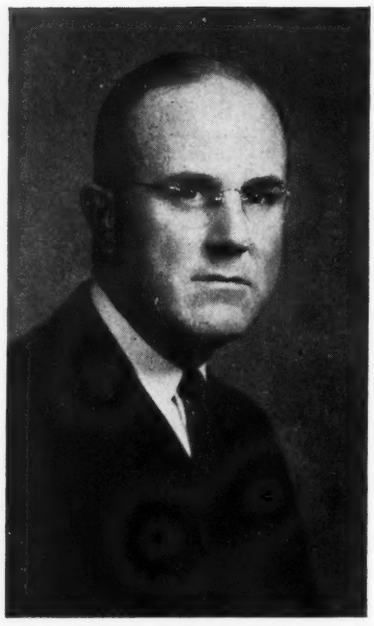
Each month the lowly soybean grows in importance—new uses are found, more storage problems arise.

Storage need be no serious problem to those with proper priority rating—or to any other grower or elevator, in post-war days.

Bins of any required diameter or height. Stave or monolithic.

Send for catalog. Plan now so you can build at earliest opportunity.

THE NEFF & FRY CO.
CAMDEN, OHIO



D. G. WING

TIE BEANS TO CORN

(Continued from page 5)

little government regulation of food products," Wing told the house committee in his prepared statement, "and we dairy farmers felt sure that anything looking or tasting like butter would surely put the cow out of business. But today, when butter and margarine are both produced on the same farm, it seems absurd to tax one at the expense of the other.

"Since margarine has become such a highly important market outlet for our valuable soybean oil, anything operating unfairly to restrict this market must obviously invite our concern and force us to ask for the removal of any tax which is unfair to the soybean."

Howard Roach in his statement said: "Each acre devoted to soybeans will produce (on the average) 235 pounds of oil or approximately 31 gallons. The ceiling price on soybean oil is 11¾c per pound. It is easy to calculate that the soybean grower produces $27.62 worth of oil per acre. You gentlemen can readily see that a soybean grower is vitally interested in any legislation that may affect the vegetable oil industry.

"The American Soybean Association has repeatedly gone on record favoring the repeal of excise taxes on margarine *when margarine is produced from domestically produced fats and oils.* For the most part, the soybean grower and the dairy farmer are one and the same person, and we farmers see no object in suppressing one of our activities to favor another."

Market Street

We invite the readers of THE SOYBEAN DIGEST to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

**Rate: 5c per word per issue.
Minimum insertion $1.00.**

FOR SALE: Used Steel Storage Tanks, 8,000, 10,000, 12,000, 18,000 gal. And other sizes. Stanhope, Wayne, Penna.

SOYBEANS IN WASHINGTON

(Continued from page 6)

time business which necessarily forces curtailment of experimentation and trials, the Centennial Flouring Mills decided to drop the soybean business, at least for the time being. The Jacklin Seed Company bought the stock seed and business rights back from them and are now holding this seed. We are selling this seed and are hopeful that through farmers' trials we may, in an indirect way, get some answers to production problems still unsolved. Our company cannot expend much time on soybean studies, trials or experiments now because of the pressure on us for production of edible and seed peas and beans. We believe that we shall be growing soybeans in the Inland Empire of the Pacific Northwest. At present irrigated lands look the most promising. Our hopes are high for soybean production in quantity when the Big Bend comes under irrigation.

We believe that soybeans will grow successfully in many parts of the Northwest but we do not have all the problems of production under control.

—s b d—

CCC CAMPAIGNS FOR PLENTIFUL SEED STOCKS

Commodity Credit Corporation is asking the various state extension services, the AAA, seed dealers, country elevator men, soybean processors and growers to cooperate in getting ample stocks of good-quality, high-oil-content, adapted varieties of soybeans retained for seed, William McArthur, director of the grain division, has announced.

This effort by CCC is due to the great need of soybean products for the prosecution of the war, the variation in oil content and adaptability of varieties to particular areas, and also a wish to prevent a repetition of last winter's experience when, because of the great shortage of seed, CCC was forced to make available for that purpose stocks of mixed varieties.

State and county AAA committees are urged to encourage farmers who have stocks of good-quality, adapted varieties of high-oil-content soybeans to hold them for sale as seed. Farmers not having an adapted variety for seed are urged to buy their supply as soon as possible in order to insure themselves an adequate seed supply for 1944.

Producers storing soybeans on their farms for seed are eligible for a loan from Commodity Credit Corporation in areas where farm-storage loans are available, such loan to be paid off upon sale of the beans, but not later than April 30, 1944.

County AAA committees purchasing soybeans for storage in CCC bins are urged to segregate adapted varieties of high-oil-content, good-quality soybeans by varieties and retain their identity until sold for seed or until after the seeding season is over.

In selecting a variety adapted to an area, emphasis should be placed on early-maturing varieties and on a minimum of varietal mixture, as varietal mixtures contributed to a late harvest in 1942, when many soybeans were frost- or weather-damaged because of early frosts and a rainy harvest season.

CCC has asked state extension services to prepare lists of recommended varieties for their respective states, which may be obtained from county agents and from state and county AAA committees. See the October *Digest* for recommended varieties for Ohio, Iowa and Illinois.

★ GROWERS ★

Farming on the Contour

More proof that contour farming boosts crop production is given in a recent study of corn, barley, wheat, oats and soybean yields for 1942 taken from account records of farmers in Madison, St. Clair, McLean, Jo Daviess, Stephenson and Winnebago counties, in Illinois.

Soybean yields from 369 contoured acres had a four-bushel advantage over the 2,016 acres not contoured and averaged 23.3 bushels to the acre, according to E. L. Sauer, of the Soil Conservation Service, and H. C. M. Case, head of the department of agricultural economics, University of Illinois College of Agriculture, who compiled the report.

"Contouring increases yields even in years when moisture supplies are plentiful, as in 1942," Sauer and Case pointed out. "It does this by holding the seed, ample moisture and fertilizer in place where needed as well as helping anchor the soil itself."

IN IOWA

Corn, oats and soybeans contoured in 1943 on the important soil types found in eastern, southern and western Iowa showed greater average yields than up-and-down hill plantings in the same fields. The tests were conducted in soil conservation districts by the Iowa Agricultural Experiment Station, the Soil Conservation Service and the Iowa State College Extension Service.

Contoured soybeans made greater yields than up-and-down hill planting in 34 of the 38 fields where tests were made, and the margin for all 38 fields was 2.2 bushels per acre in favor of contouring.

This was the second year for the tests on soybeans. In 1942 there was an increase in favor of contouring of 3.2 bushels of soybeans. The average increase in favor of contouring for 1942 and 1943 was 2.7 bushels of soybeans.

★ BOOKS ★

PLOWMAN'S FOLLY, by Edward H. Faulkner, published by University of Oklahoma Press. 162 pages. Price $1.75.

The author advocates a startling change in our agricultural methods, no less than the elimination of the use of the moldboard plow! By this elimination he apparently expects to solve a large share of present day agriculture's problems, from erosion and moisture control to insect pests and diseases and even the one of maintaining soil fertility.

The book has attracted an amazing amount of attention and already has champions and detractors in plenty. Mr. Faulkner is a former county agent and vocational agriculture teacher. His theory is simply stated. Plowing puts the organic material down six to 12 inches underground, throwing up new topsoil in a loosened condition subject to sun baking and wind and water erosion. The layer of organic material underneath breaks up capillary action so the surface dries out. Instead of plowing, he discs large amounts of organic matter into the soil surface. This method retards erosion and maintains capillary action.

Qualified approval to the idea is given by H. H. Bennett, head of the soil conservation service, who says we in the United States have been on a "moldboard plow jag" for the past 200 years. "If three-fourths of the cropland of the country never again felt the bite of the turning plow for ordinary farm tillage, it would be a gain to rural America," says Mr. Bennett.

A more critical approach to the whole question is called for by Wm. A. Albrecht of the department of soils, University of Missouri in *Better Crops with Plant Food*. "It is well to note whether it is the advent of the plow or the exit of the soil fertility that needs correction in improved soil conservation thinking," says Professor Albrecht. "Certainly soil conservation is more than simple mechanics, simple physics, and simple psychology."

It is likely that Mr. Faulkner, like many enthusiasts, tends to go all-out for his pet idea, and so vastly over simplifies soil problems. However, if he succeeds in calling widespread attention to the connection of our methods of cultivation with these problems, he will have performed a real service. The subject is one to which soybean growers should attend, since the charge is being made that soybeans are aggravating erosion problems.

A $20,000 ICE BOX

Presented by Fixo

ESSENTIAL IN A CONTINUOUS PROGRAM TO IMPROVE NOD-O-GEN

It would cost far more than $20,000 to replace this "ice box" . . . . because it contains the Nod-O-Gen "stock cultures" — the pure bacteria from which commercial cultures are developed.

Here are the results of over 25 years of bacteriological research . . . . of scientific efforts to discover stronger, more vigorous strains of "bugs."

As superior types are developed, they go into commercial use. This is all a part of a continuous program to improve Nod-O-Gen, to give the grower a superior legume inoculator and the dealer a product which insures repeat profits.

Farm Laboratory Division

THE ALBERT DICKINSON COMPANY

Chicago 90, Illinois **Est. 1854**

Southern Office and Warehouse: 218 South President Street, Jackson, Mississippi

NOD-O-GEN
THE
PRE-TESTED INOCULATOR

★ GRITS AND FLAKES ★

FROM THE INDUSTRY

Launched last July, Purina Mills' "Food for Victory" crusade has already enlisted more than 80,000 farmers, nearly 3,400 of the firm's distributors and almost 1,000 other workers in a drive to secure capacity food production per unit of available feed. Posters and circulars attacking waste, faulty management and poor sanitation have been distributed through county agents and vocational agricultural teachers, and nearly three-quarters of a million persons have received the conservation message through the company's inspirational sound movie, "Twenty Fighting Men."

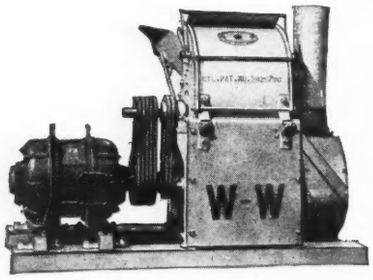
At left is shown eight-ounce package of Sycora Brand whole soya flour offered by Soya Corporation of America. "It may be that our new approach to the problem of making the soybean acceptable to the human palate will offer a lasting contribution to the industry as a whole," says Dr. Armand Burke, president.

The processing plant of Shellabarger Soybean Mills at Pana, Ill., is completed and beginning operations in the production of soy flour. The Shellabargers, who were pioneers in the edible soy flour field, do not plan to package but to sell through jobbers and direct to consumers who purchase in large quantities.

— Chemurgic Digest

Russell G. East, for more than 20 years general agricultural agent for the Pennsylvania railroad, and a pioneer soybean producer and booster, died suddenly at his home in Richmond, Ind., November 3. Mr. East instituted the Pennsylvania railroad's soybean car, which was exhibited for several years not only along the Pennsylvania lines but on several other roads as well. Completely fitted with soybean products, the car was visited by tens of thousands. Mr. East operated his home farm of 430 acres. He was chairman of the Indiana Farm Chemurgic Commission.

A 5-lb. pea-soya dry soup mix is being shipped abroad by the Department of Agriculture, War Food Administration, for relief and rehabilitation feeding, packed in a newly designed cargo space saving delta-seal kraft bag. Instructions for preparation of the soup are printed in 15 foreign languages.



LOOK AT THESE ADVANTAGES!

Besides its ability to pulverize materials when powder-consistencies are desired, the W-W design gives you these features: A wide, thin stream into the grinder. Cuts horsepower; reduces heat and friction. Prevents clogging of screens. Reduces moisture loss. Staggered hammers prevent clogging of screens or choking — applying not only to pulverizing but to heavy-duty grinding. No need of pre-cutters or crushers.

★

Roomy Feed Openings

Our Grinders have feed openings 18 inches to 36 inches wide, which promote COOL GRINDING over a wide feed opening, permitting W-W Grinders to grind OILY Materials finer than others with LESS Horsepower.

Our grinders can be adapted for any type of Grinding, Pulverizing Dry Materials, Grinding Materials with high grease or oil content, as well as grinding of Wet, Green, Bulky or Stringy Materials.

★

If you are interested in grinding jobs of any kind or size, ask for more information at once. Write

W-W. Grinder Corp.

DEPT. SB WICHITA, KANSAS

One Way to Conserve

SOYBEAN PRODUCTS

27 Conveniently Located Offices and Factories

BUFFALO
TOLEDO
PHILADELPHIA
CHAGRIN FALLS
GOSHEN, IND.
MILWAUKEE
MINNEAPOLIS
KANSAS CITY
NEW ORLEANS
JACKSONVILLE, FLA.
DALLAS
ST. LOUIS
CHICAGO
NEW YORK
DETROIT
CLEVELAND
ORLANDO, FLA.
PORTLAND, ORE.
DENVER
PITTSBURGH
OKLAHOMA CITY
SALT LAKE CITY
BOISE
MEMPHIS
HUTCHINSON
REIDSVILLE, N. C.
HARLINGEN, TEXAS

Today, when conservation of vital soybean products is a matter of national concern, you owe it to your fellow countrymen to safeguard your shipments in every way possible.

Take no chances with bags of mediocre quality. Chase commends to you its sturdy Chase Test cotton fabric—a heavy-duty, tight-weave material made to take a lot of buffeting around.

Bags of Chase Test are made in all standard sizes—perfectly printed as you wish. Send for samples.

SERVICE COAST to COAST

CHASE BAG CO.

GENERAL SALES OFFICES
309 WEST JACKSON BLVD., CHICAGO, ILL.

Not Enough

★ ★ ★ ★ ★ ★ ★ ★

RUHM'S PHOSPHATE

★ ★ ★ ★ ★ ★ ★ ★

But There Is Some

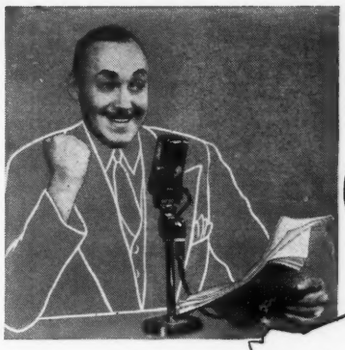
To help you produce more food and feed for furthering the war effort, we've doubled mill and mine capacity but can't match the growing demand.

Best by Every Test for Soybeans

Order Now for 1944

Ruhm Phosphate & Chemical Co.

Mt. Pleasant, Tenn.



HERE'S A $64 QUESTION

The $64 would be practically "in the bag" if you'd give these 100% correct answers:

Q. Why is ANSUL Sulphur Dioxide Better for Soybean Processing?

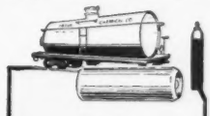
1 Better proteins are obtained when Ansul Sulphur Dioxide is used in extraction and precipitation.

2 Ansul Sulphur Dioxide is a selective solvent for treating soybean oil.

3 Bleaching of proteins with Ansul Sulphur Dioxide or hydrosulfites derived from Ansul Sulphur Dioxide improves their color.

LIQUID Sulphur Dioxide ANSUL

AT YOUR SERVICE: The Ansul Technical Staff will be glad to help you work out problems of application and handling of Sulphur Dioxide. Write today!



Supplied in tank cars, ton drums and 150-lb. cylinders.

28 Years of Knowing How

ANSUL CHEMICAL COMPANY

MARINETTE, WISCONSIN • EASTERN OFFICE: PAOLI, PENN.

BAGS

BURLAP... COTTON

"used bags that look like new"

Quality-Service-Price

The foundation of business is confidence, which springs from integrity, fair dealing, efficient service and mutual benefit.

BAGS, BAGGING, BURLAP —

New and Second-Hand

"IT'S IN THE BAG" BURROS BAGS Used the World Over

Manufacturers — Dealers — Importers — Exporters

WRITE — WIRE — PHONE

BURROS BAG COMPANY, INC.

PLYMOUTH & ADAMS STS., BROOKLYN (1), NEW YORK

Telephones: Main 4-2424-5-6 **Cable "Burrosbag" New York**

Edwal

LABORATORIES, INC.

Official Chemists for National Soybean Processors Ass'n.

ANALYSIS OF
SOYBEANS
AND PRODUCTS

Dept. S, 732 Federal St., Chicago 5, Illinois

WOODSON-TENENT
LABORATORIES

MEMPHIS, TENNESSEE and CAIRO, ILLINOIS

Analysis of Soybeans and Products

Official Chemists for National Soybean Processors Association

Sole Manufacturers
Patented

NU-SEME
BURLAP AND
COTTON BAGS

The best substitute for new bags.

Also good quality second-hand bags.

ALWAYS
a good source of supply for bags.

During the war and
After the war

QUALITY AND
SERVICE

WESTERN BURLAP BAG CO., Inc.
1109-21 West 38th St. CHICAGO, ILL.

IN THE MARKETS

● **STOCKS.** Soybeans from the crop of 1942, or earlier, remaining in all positions on and off farms October 1, 1943 are reported at 12,891,000 bushels by the Crop Reporting Board of the U. S. Department of Agriculture. Included in this total are 4,763,000 bushels held in processing plants, as enumerated by the Bureau of the Census; 732,000 bushels stored at 46 terminal markets, reported by the Grain Products Branch of the Food Distribution Agency; 1,819,000 bushels reported by Commodity Credit Corporation remaining in their own steel and wooden bins; as well as 640,000 bushels in Interior Mills and Elevators and 4,937,000 bushels on farms, estimated by the Crop Reporting Board. Current stocks of old soybeans in all positions, on and off farms, are more than double the 6,000,000 bushels estimated October 1, 1942.

Stocks on July 1, 1943 were 45,319,000 bushels in the same positions; disappearance since that date is thereby indicated at 32,428,000 bushels. Total consumption during the July 1-October 1 period by processors of vegetable oils, is reported by the Bureau of the Census at 28,667,000 bushels. The difference between indicated disappearance and crushings during the 3-month period represents, in addition to those fed on farms where produced and those processed for food, a movement of soybeans into more or less unusual channels. A total of 132,572,000 bushels of soybeans had been crushed in the 12-month period ended September 30, 1943.

New soybeans are already moving into storage, but are not included in these estimates, except insofar as they may appear in the Bureau of the Census data. The following table shows stocks of old soybeans (1942 or earlier crop) in establishments covered by estimates of the Crop Reporting Board as of October 1, with comparisons:

Stocks of Soybeans in Mills, Elevators, Warehouses and Other Establishments* October 1, 1943 With Comparisons

(Thousand bushels)

State	Oct. 1 1942	July 1 1943	Oct. 1 1943	State	Oct. 1 1942	July 1 1943	Oct. 1 1943
Ohio	100	975	123	Miss.	1	5	1
Ind.	126	1,013	156	Ark.	2	10	1
Ill.	510	3,910	95				
Mich.	24	50	50	10 States	880	6,995	544
Minn.	27	47	15	Other States	48	262	96
Iowa	63	847	73				
Mo.	15	133	26				
N. C.	12	5	4	U. S.	928	7,257	640

*Excludes stocks in crushers and processing plants enumerated by the Bureau of the Census and stocks at 46 terminal markets reported by the Grain Products Branch, F. D. A.

● **OCTOBER INSPECTIONS.** Receipts of soybeans inspected in October, the first month of the 1943-44 season, were nearly double those of October 1942 and totaled 33,272 cars, inspectors' reports to the Food Distribution Administration show.

The quality of the new crop, as indicated by the October inspections, is considerably higher than that of last season, 95 percent grading No. 2 or better compared with only 58 percent the same month a year ago.

Inspections of soybeans in October included the equivalent of 25 cars inspected as cargo lots, and truck receipts equivalent to about 214 cars.

Period 1943-44	Total Car Lots				
	Illinois	Indiana	Iowa	Missouri	Ohio
October	16,474	2,901	2,899	3,084	4,200

● **MEAL PRODUCTION.** The production of soybean meal in 1942-43 increased 72 percent over the previous year, and 406 percent over the 10-year average. Approximately 3,158,300 tons of soybean meal were available for domestic consumption in 1942-43 compared with 1,825,200 tons in 1941-42 and 643,100 tons the 10-year average. Soybean meal supplies in 1942-43 exceeded those of cottonseed meal for the first time on record and were about 3/5 as large as supplies of wheat feeds. The soybean crop this year is slightly smaller than last, and a larger proportion of it may be ground for flour for domestic and foreign consumption. It is expected however that with larger facilities for crushing and a higher quality crop, a larger proportion of the soybeans will be crushed. This would result in a supply of soybean meal equal to or slightly larger than last season's record supply.

● **STANDARD SHORTENING SHIPMENTS.** By members of Institute of Shortening Mfgrs., Inc.

Week ending November 13, lbs. 9,129,882
Week ending November 20 8,847,933
Week ending November 27 7,397,737

● **STOCKS.** Stocks of soybeans in commercial storage as reported by Agricultural Marketing Administration in bushels: Nov. 16, 18,206,551; Nov. 23, 20,189,321; Nov. 29, 21,267,381; Dec. 7, 21,433,356.

● **CANNED SOYBEANS.** All types of canned soybeans have been lowered in point value from 5 points to 3 points for No. 2 cans effective Dec. 5, the Office of Price Administration has announced.

● **FOOD USES.** Despite increased production of edible soya products to meet an expanded military and civilian demand, more than 90 percent of the soy meal of the large soybean crop is being used in the production of livestock feed, the War Food Administration reports.

Reports to the effect that a large percentage of the 1943 production of soybean meal has been set aside by the Government for processing into human food at the expense of the protein concentrate requirements of animal feeders are unfounded, Food Distribution Administration officials state. No order has been issued by the government requiring processors to set aside soybean oil meal for the manufacture of edible products.

Current rate of production indicates that the output of edible soya products for all purposes during the last 3 months of 1943 will require the equivalent of about 74,000 tons of soybean meal. Soybean oil meal production during the same period, however, is expected to total between 800,000 and 900,000 tons. Requirements for edible soya products are expected to continue during the first quarter of 1944 at about the same rate as present — less than 10 percent of the total soybean meal production.

Facilities for the manufacture of edible soya flour and grits are ample to meet demands for these products, FDA officials said. Soya products are valuable protein foods for human consumption. They supplement meat, eggs, milk, and other such products in the diet of U. S. military forces and civilians and are essential in meeting the food requirements of our allies and liberated areas.

● **WAR FOOD ADMINISTRATION PURCHASES.** For Lend-Lease, territorial emergency, Red Cross and other purposes, in pounds.

Commodity (pounds)	Quantity — October	Quantity — Jan. 1, to Oct. 31, 1943
Oleomargarine	30,000	63,047,102
Shortening	500,000	61,696,294
Soybean Oil	—	21,783,500
Soybean Pellets	—	400,000
Soya Beans	10,304,000	11,504,000
Soya Flour	—	119,910,000
Soya Grits	—	71,050,000

In addition to the purchase reported above, Commodity Credit Corporation has made available the following for Lend Lease operations:

Soybeans	—	41,864,000
Soybean Oil Meal (tons)	200	8,154

GOVERNMENT ORDERS

● **EDIBLE OILS.** Regulations prohibiting the use of the four edible oils (cottonseed, peanut, soybean and corn) in a number of industrial products have been transferred by the War Food Administration from Food Distribution Order No. 42 to the edible oils allocation order, Food Distribution Order 29, to simplify administrative procedure. FDO 42 is a general order covering fats and oils.

Effective November 23, FDO 29 will prohibit, (unless specifically authorized on Form FDA-478 by the Director of Food Distribution) the use of cottonseed, peanut, soybean and corn oils in printing inks, including lithographing, offset, silk screen and other processing inks; core oils; animal and poultry feeds, and in vitamin preparations for animals and poultry.

These oils similarly will be prohibited for use in soap (except in USP XII soap for medicinal use; and soft soap, hospital grade, according to U. S. Army specifications No. 4-1027A for delivery to the Army); and in paints, varnishes, lacquers, and all other protective coatings, linoleums, felt base floor covering, oilcloth and coated fabrics (except that soybean oil may be used in synthetic resins, as a plasticizer in lacquers and as a plasticizer in coated fabrics, other than linoleum, oilcloth and felt base floor coverings).

Use of soybean oil was permitted in industrial products generally for several weeks beginning July 10.

● **SET-ASIDE ORDER.** The War Food Administration is requiring processors of oilseeds to set aside 20 percent of their January production of oilseed meal for distribution to areas designated by the Food Production Administration of the WFA.

The set-aside order, the first under Food Production Order No. 9, was issued by J. B. Hutson, director of the Food Production Administration, and is designed to make protein meal available for wider distribution.

In announcing the set-aside order, Hutson requested the voluntary cooperation of oilseed processors in making quantities of protein meal available for directed distribution during December. Any meal made available for this purpose will be credited against the 20 percent set-aside required of the individual processor during January.

● **OIL DELIVERIES.** Restrictions on delivery of crude cottonseed, peanut, soybean and corn oils to refiners (for refining) have been suspended by the WFA through March 31, 1944, extending for 3 months the current suspension which became effective October 1, 1943.

Authorizations for delivery to all users (except refiners) will continue to be obtained from the Food Distribution Administration.

There is no change in authorizations for use of the four oils or the shipment of refined oil by refiners to other refiners, and margarine and shortening manufacturers.

TAILOR-MAKE SOYBEAN MEAL WITH SKELLYSOLVE

. . . and get more oil per bushel

THE Soybean processing industry is turning to solvents. Soybean oil is bringing higher prices. That makes it more imperative *and more profitable* to get the extra pounds of oil which can be taken from each bushel by the solvent method. Furthermore, new processes enable the solvent processor to tailor-make his meal for *any* desired use—feeding or industrial.

Anticipating the growing interest in the solvent processing of soybeans, the Skelly Oil Company is in a position to supply soybean processors a type of SKELLYSOLVE especially refined to provide efficient and economical extraction of soybean oil.

SKELLYSOLVE'S reputation as one of America's foremost suppliers of solvents is built on three things:

First—the right type of solvent for YOUR particular requirement.

Second—getting that type of solvent to you when you need it and when emergency arises.

Third—special technical assistance in the solution of special problems.

Write or wire today to the address below, for complete information. There is no obligation, of course.

SKELLYSOLVE *for the SOYBEAN Industry*

There are six different types of Skellysolve which are especially adapted to the efficient extraction of soybean, also corn germ, cottonseed, meat scrap, and other vegetable and animal oils. The Skellysolve that is especially refined for extraction of more oil from each bushel of soybeans has the correct boiling range and other special properties which meet the exacting requirements of this particular service.

SKELLY

SKELLYSOLVE

SOLVENTS DIVISION, SKELLY OIL CO.
SKELLY BLDG., KANSAS CITY, MO.